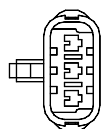


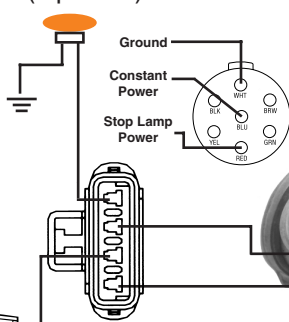
Troubleshooting The Bendix MC-12 Trailer AntiLock System (Pre-2/98)

3 PIN STYLE CONNECTOR



Ground
Stop Light Power
Status Light

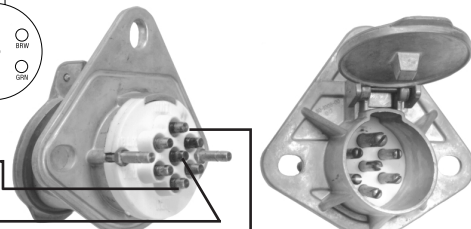
STATUS INDICATOR (Optional)



7 PIN CONNECTOR

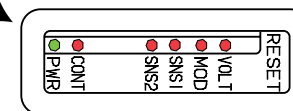
Back

Front



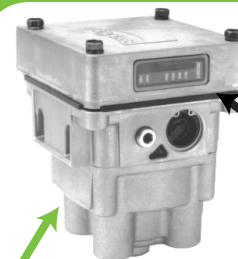
OPERATIONAL INFORMATION

The EC-12 controller houses the electronics that regulate the antilock system. The EC-12 contains a diagnostic window and a 14 pin connector.



Diagnostic Window

Connector

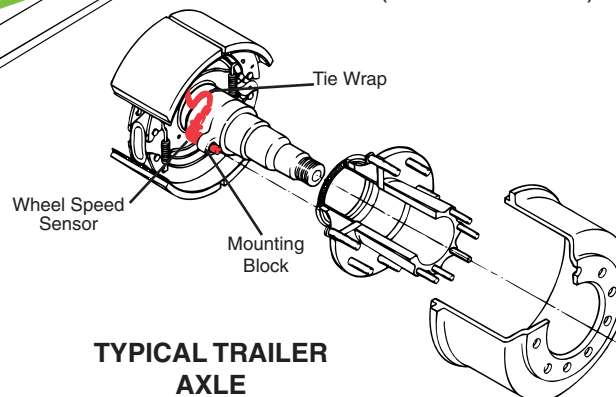


MC-12 Modulator Controller
(Ref SD-13-4762)

The EC-12 mounts on the M-12 modulator with four bolts and it is internally connected to the solenoids by a four pin connector. Sensors mounted at the wheel end send wheel speed information to the EC-12 through the 14 pin connector. If wheel lock up is impending, the EC-12 commands the solenoids to modulate brake chamber pressure on the axle(s) on which the system is installed. The MC-12 modulator controller receives power from the 7 pin, tractor to trailer, connector at the nose of the trailer. The ground connection to the EC-12 is also from the 7 pin connector. During start up, when the trailer brakes and stop lights are actuated, trailer antilock immediately runs a self check. The trailer status light, if so equipped, flashes once and then goes off. Should a problem occur, the status light comes on and remains on.

WHEEL SPEED SENSOR CONNECTOR

Resistance Across Pins
1500 - 2500 ohms
(Ref. SD-13-4754)



TYPICAL TRAILER AXLE

TROUBLESHOOTING

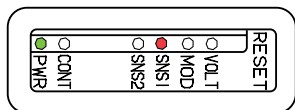
If the status light remains on with power applied, inspect the EC-12 for illuminated LEDs. The status light is an optional feature in the trailer antilock system. If no status light is present, the diagnostic LEDs should be checked periodically.

Reset controller with magnet after repair.

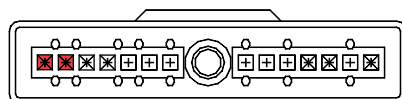


IF THESE LED'S
ARE ILLUMINATED

CHECK THE VEHICLE WIRING HARNESS CONNECTOR
FOR THE PROPER RESISTANCE WITH
STOP LAMP POWER OFF

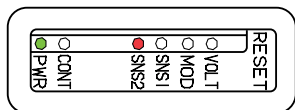


SENSOR 1

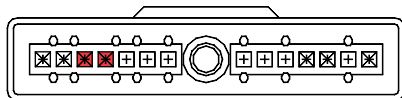


PNMLKJH GFEDCBA

N - P 15 - 2500 Ohms

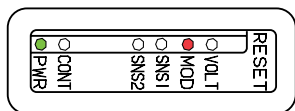


SENSOR 2



PNMLKJH GFEDCBA

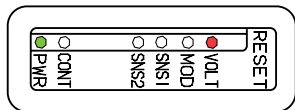
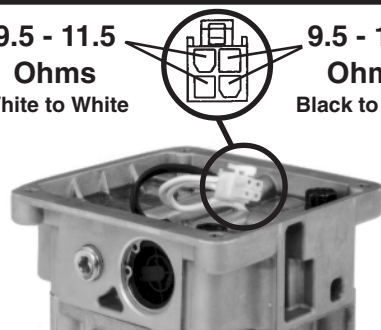
L - M 15 - 2500 Ohms



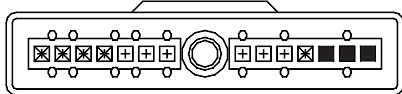
MODULATOR

9.5 - 11.5 Ohms
White to White

9.5 - 11.5 Ohms
Black to Black



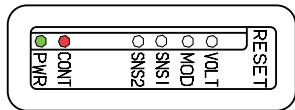
VOLTAGE
w/STOP
LAMP
POWER



PNMLKJH GFEDCBA

A - C 9 to 18 Volts DC

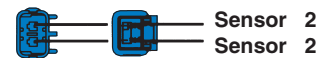
B - C 9 to 18 Volts DC



ECU
CONTROLLER

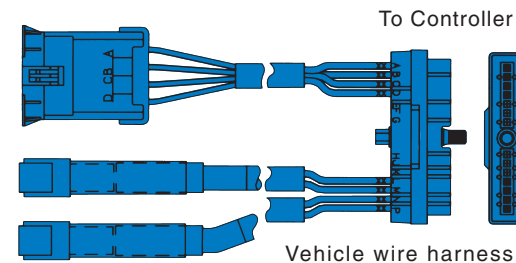
Replace Controller

MC-12 Controller Cable Assembly



Old Style
New Style

*Old Style Connectors do not have a Constant Power terminal

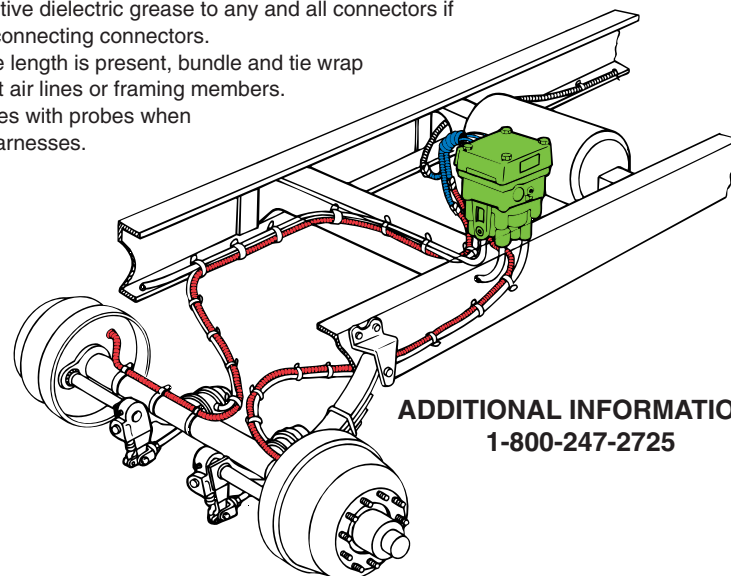


Most Commonly Encountered Problems That Result In LEDs Being Illuminated.
Repair or Replace Components As Necessary

- Damaged connectors or wires, caused by dangling or loose wires not properly restrained.
- Power connection not capable of supplying 12 volts at 3 amps because of a poor connection, bad crimp.
- Corroded connectors and connections not properly sealed or seated.
- Terminals not completely latched or sealed into connectors; harness connector bolt not tight.
- Improperly spliced connection repair or repair not sealed properly.
- Excessive sensor air gap, sensor bushing tension or excessive bearing end play (Gently push sensor against exciter ring, or readjust bearings).
- Non functioning antilock components, sensor, controller, modulator.

Additional Servicing Tips

- Gently probe terminals when checking for resistances, do not deform contacts.
- Apply nonconductive dielectric grease to any and all connectors if inspecting or disconnecting connectors.
- If excessive cable length is present, bundle and tie wrap neatly to adjacent air lines or framing members.
- Do not pierce wires with probes when troubleshooting harnesses.



ADDITIONAL INFORMATION:
1-800-247-2725